

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-26. (canceled).

27. (previously presented) A vial comprising a bored interior having a consistent dimension to hold a frit for retaining material within the vial directly above the frit and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial and a solid support retained within the vial above the frit after the flushing procedure.

28. (previously presented) The vial according to claim 27 further comprising an exterior dimension to fit directly within a receiving hole of a cartridge, thereby providing a pressure-tight seal directly between the vial and the cartridge.

29. (currently amended) A vial comprising an interior wall and an exterior support dimension to fit directly within a receiving hole of a cartridge thereby providing a pressure-tight seal directly between the vial and the cartridge, a bored interior having a consistent dimension to maintain a consistent flow through the bored interior during flushing procedures by only forming a pressure differential to expel material from the vial and a solid support retained within the vial above a frit after flushing procedures, wherein the interior wall linearly tapers from the exterior support to the frit.

30. (previously presented) The vial according to claim 29 consisting essentially of a single frit positioned within the bored interior to retain material within the vial above the frit.

31-34. (canceled).

35. (currently amended) A vial comprising:
- a. a bored interior having a consistent dimension to hold a frit for retaining material above the frit and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial;
  - b. a top opening through which material is dispensed into the bored interior;
  - c. a bottom opening of a diameter to retain material within the bored interior when no pressure differential is applied and through which material is flushed during the flushing procedure;
  - d. an outer wall exterior dimension to fit directly within a receiving hole of a cartridge to form a pressure-tight seal directly between the vial and the cartridge when the vial is inserted into a receiving hole of the cartridge, wherein the outer wall continuously tapers from the top opening to the bottom opening; and
  - e. a solid support retained within the vial above the frit after the flushing procedure.
36. (currently amended) A vial comprising:
- a. a frit;
  - b. a solid support; and
  - c. a body comprising:
    - ii. a bored interior having a consistent dimension to hold the frit for retaining the solid support above the frit and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial, wherein the solid support and material formed on the solid support is retained above the frit, within the vial, during a flushing procedure;
    - iii. a top opening through which material is dispensed into the bored interior;
    - iv. a bottom opening of a diameter to retain material within the bored interior when no pressure differential is applied and through which material is flushed during the flushing procedure; and

- f. v. an exterior dimension support to fit directly within a receiving hole of a cartridge to form a pressure-tight seal directly between the vial and a cartridge when the vial is inserted into a receiving hole of the cartridge; and

vi. an interior wall;

wherein the interior wall linearly tapers from the exterior support to the frit.

37. (previously presented) The vial as claimed in claim 36 wherein the solid support is controlled pore glass beads.

38. (previously presented) The vial as claimed in claim 36 wherein the material dispensed into the bored interior is a reagent solution.

39. (canceled).

40. (previously presented) The vial as claimed in claim 27 wherein the solid support is controlled pore glass beads.

41. (canceled).

42. (previously presented) The vial as claimed in claim 29 wherein the solid support is controlled pore glass beads.

43. (canceled).

44. (previously presented) The vial as claimed in claim 35 wherein the solid support is controlled pore glass beads.

45. (currently amended) A vial including an interior wall and a bored interior having a consistent dimension to hold a frit, the vial consisting essentially of a single frit for retaining material within the vial directly above the single frit and maintain a consistent flow through the

bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial and a solid support retained within the vial above the single frit after the flushing procedure, wherein the interior wall linearly tapers from an exterior support to the frit.

46. (currently amended) A vial including an interior wall and an exterior support dimension to fit directly within a receiving hole of a cartridge thereby providing a pressure-tight seal directly between the vial and the cartridge, a bored interior having a consistent dimension to maintain a consistent flow through the bored interior during flushing procedures by only forming a pressure differential to expel material from the vial and a solid support retained within the vial directly above a frit, the vial consisting essentially of a single frit, after flushing procedures, wherein the interior wall linearly tapers from the exterior support to the frit.

47. (currently amended) A vial comprising:  
an interior wall;  
a bored interior having a consistent dimension;  
a material for growing a polymer chain; and  
a frit for retaining the material within the vial directly above the frit and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial and a solid support retained within the vial above the frit after the flushing procedure, the vial consisting essentially of a single frit, wherein the interior wall linearly tapers from an exterior support to the frit.

48. (currently amended) A vial comprising an interior wall and a bored interior having a consistent dimension to hold a frit, the vial consisting essentially of a single frit for retaining material within the vial directly above the single frit without any additional frits and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial and a solid support retained within the vial above the single frit after the flushing procedure, wherein the interior wall linearly tapers from an exterior support to the frit.

49. (canceled)

50. (currently amended) A plurality of vials each comprising an interior wall and a bored interior having a consistent dimension to hold a frit, wherein the consistent dimension is consistent for each of the plurality of vials, each of the vials consisting essentially of a single frit for retaining material within the vial directly above the single frit and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial and a solid support retained within the vial above the single frit after the flushing procedure, wherein the interior wall linearly tapers from an exterior support to the frit.

51. (currently amended) A plurality of vials each comprising an interior wall and an exterior dimension support to fit directly within a receiving hole of a cartridge thereby providing a pressure-tight seal directly between the vial and the cartridge, wherein the exterior dimension is consistent for each of the plurality of vials such that any of the vials will consistently fit within the receiving hole of the cartridge, each of the plurality of vials further comprising a bored interior having a consistent dimension to maintain a consistent flow through the bored interior during flushing procedures by only forming a pressure differential to expel material from the vial and a solid support retained within the vial directly above a frit, the vial consisting essentially of a single frit, after flushing procedures, wherein the interior wall linearly tapers from the exterior support to the frit.

52. (currently amended) A plurality of vials, each of the plurality of vials comprising:
- a. a bored interior having a consistent dimension to hold a frit for retaining material above the frit and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial, wherein the consistent dimension is consistent for each of the plurality of vials;
  - b. a top opening through which material is dispensed into the bored interior;
  - c. a bottom opening of a diameter to retain material within the bored interior when no pressure differential is applied and through which material is flushed during the flushing procedure;
  - d. an exterior support dimension to fit directly within a receiving hole of a cartridge to form a pressure-tight seal directly between the vial and the cartridge when the vial is inserted into a receiving hole of the cartridge,

wherein the exterior dimension is consistent for each of the plurality of vials such that any of the vials will consistently fit within the receiving hole of the cartridge; ~~and~~

- e. a solid support retained within the vial above the frit after the flushing procedure; and
- f. an interior wall, wherein the interior wall linearly tapers from the exterior support to the frit.

53. (currently amended) A plastic vial comprising an interior wall and an exterior support dimension to fit directly within a receiving hole of a cartridge thereby providing a pressure-tight seal directly between the vial and the cartridge, a bored interior having a consistent dimension to maintain a consistent flow through the bored interior during flushing procedures by only forming a pressure differential to expel material from the vial and a solid support retained within the vial above a frit after flushing procedures, wherein the interior wall linearly tapers from the exterior support to the frit.

54. (previously presented) The plastic vial according to claim 53 wherein the plastic vial is constructed of a polymer.

55. (previously presented) The plastic vial according to claim 54 wherein the polymer comprises polyethylene.

56. (currently amended) A plastic vial comprising:
- a. a bored interior having a consistent dimension to hold a frit for retaining material above the frit and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial;
  - b. a top opening through which material is dispensed into the bored interior;
  - c. a bottom opening of a diameter to retain material within the bored interior when no pressure differential is applied and through which material is flushed during the flushing procedure;

- d. an exterior support dimension to fit directly within a receiving hole of a cartridge to form a pressure-tight seal directly between the vial and the cartridge when the vial is inserted into a receiving hole of the cartridge;  
and
- e. a solid support retained within the vial above the frit after the flushing procedure; and
- f. an interior wall, wherein the interior wall linearly tapers from the exterior support to the frit.

57. (previously presented) The plastic vial according to claim 56 wherein the plastic vial is constructed of a polymer.

58. (previously presented) The plastic vial according to claim 57 wherein the polymer comprises polyethylene.

59. (currently amended) A molded polyethylene compressible vial comprising an interior wall and an exterior compressible dimension to compressibly fit directly within a receiving hole of a cartridge thereby providing a pressure-tight seal directly between the vial and the cartridge, a bored interior having a consistent dimension to maintain a consistent flow through the bored interior during flushing procedures by only forming a pressure differential to expel material from the vial and a solid support retained within the vial above a frit after flushing procedures, wherein the interior wall linearly tapers from the exterior compressible dimension to the frit.

60. (currently amended) A molded polyethylene compressible vial comprising:
- a. a bored interior having a consistent dimension to hold a frit for retaining material above the frit and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial;
  - b. a top opening through which material is dispensed into the bored interior;
  - c. a bottom opening of a diameter to retain material within the bored interior when no pressure differential is applied and through which material is flushed during the flushing procedure;

- d. an exterior compressible dimension to compressibly fit directly within a receiving hole of a cartridge to form a pressure-tight seal directly between the vial and the cartridge when the vial is inserted into a receiving hole of the cartridge; ~~and~~
  - e. a solid support retained within the vial above the frit after the flushing procedure; and
  - f. an interior wall, wherein the interior wall linearly tapers from the exterior compressible dimension to the frit.
61. (currently amended) A vial comprising:
- a. a top opening;
  - b. a ~~unidirectional~~ bottom opening;
  - c. a precision bored interior that holds a frit, providing a consistent compression and seal with the frit and provides a consistent flow of a reagent solution through the vial during a dispensing and a purging process;
  - d. a solid support within the vial that is retained above the frit after the purging process; and
  - e. a support that has a precise dimension that provides a pressure tight seal around the vial when the vial is placed in a cartridge;
  - f. an interior wall, wherein the interior wall linearly tapers from the support to the frit.